REMARKS

This responds to the Office Action dated on March 26, 2004.

Claims 9, 20, and 56 are amended. Claims 23-55 and 66-72 remain canceled. Claims 1-22, 56-65, and 73-77 are now pending in this application.

Objections to the Claims

Claim 9 was objected to because of an informality.

Claim 9 was amended to correct an editorial error by changing "external system" to "external device." Applicant believes that the correction has addressed the issue raised in the objection.

Applicant respectfully requests reconsideration and allowance of claim 9.

§103 Rejection of the Claims Using Carlson and Koestner

Claims 9-11, 13-16 and 19-22 were rejected under 35 USC § 103(a) as being unpatentable over Carlson et al. (U.S. Patent No. 5,792,195, hereinafter "Carlson") in view of Koestner et al. (U.S. Patent No. 5,300,093, hereinafter "Koestner").

Claim 9

Claim 9 was amended to better describe the recited subject matter. Insofar as the rejection if applied to claim 9, Applicant respectfully traverses the rejection. Applicant submits that Carlson and Koestner do not provide the subject matter recited in claim 9. For example, Applicant is unable to find that Carlson and Koestner teach or suggest, among other things, an output device including a display configured to simultaneously display multiple signals and a pair of calipers for comparing timing between any of the displayed multiple signals, and an input devices adapted to control a position of each caliper of the pair of calipers, as recited in claim 9.

Applicant respectfully request reconsideration and allowance of claim 9.

Claims 10, 11, 13-16, and 19

Applicant respectfully traverses the rejection of claims 10, 11, 13-16, and 19. Claims 10, 11, 13-16, and 19 are dependent on claim 9, which is believed to be patentable for at least the

reasons stated above. Thus, the discussion above for claim 9 is hereby incorporated to support the patentability of claims 10, 11, 13-16, and 19.

Applicant respectfully requests reconsideration and allowance of claims 10, 11, 13-16, and 19.

Claim 20

Claim 20 was amended to better describe the recited subject matter. Insofar as the rejection if applied to claim 20, Applicant respectfully traverses the rejection. Applicant submits that Carlson and Koestner do not provide the subject matter recited in claim 20. For example, Applicant is unable to find that Carlson and Koestner teach or suggest, among other things, an output device including a display configured to simultaneously display multiple signals and a pair of calipers for comparing timing between any of the displayed multiple signals, and an input devices adapted to control a position of each caliper of the pair of calipers, as recited in claim 20.

Applicant respectfully request reconsideration and allowance of claim 20.

Claims 21 and 22

Applicant respectfully traverses the rejection of claims 21 and 22. Claims 21 and 22 are dependent on claim 20, which is believed to be patentable for at least the reasons stated above. Thus, the discussion above for claim 20 is hereby incorporated to support the patentability of claims 21 and 22.

Applicant respectfully requests reconsideration and allowance of claims 21 and 22.

§103 Rejection of the Claims Using Carlson, Koestner, and Lekholm

Claim 12 was rejected under 35 USC § 103(a) as being unpatentable over Carlson in view of Koestner and further in view of Lekholm (U.S. Patent No. 4,763,646, hereinafter "Lekholm").

Applicant respectfully traverses the rejection of claim 12. Claim 12 is dependent on claim 9, which is believed to be patentable for at least the reasons stated above. Thus, the discussion above for claim 9 is hereby incorporated to support the patentability of claim 12.

Applicant respectfully requests reconsideration and allowance of claim 12.

§103 Rejection of the Claims Using Carlson, Koestner, and Tockman

Claim 17 was rejected under 35 USC § 103(a) as being unpatentable over Carlson in view of Koestner and further in view of Tockman et al. (U.S. Patent No. 5,540,727, hereinafter "Tockman").

Applicant respectfully traverses the rejection of claim 17. Claim 17 is dependent on claim 9, which is believed to be patentable for at least the reasons stated above. Thus, the discussion above for claim 9 is hereby incorporated to support the patentability of claim 17.

Applicant respectfully requests reconsideration and allowance of claim 17.

§103 Rejection of the Claims Using Carlson, Koestner, and Turcott

Claim 18 was rejected under 35 USC § 103(a) as being unpatentable over Carlson in view of Koestner and further in view of Turcott (U.S. Patent No. 6,409,675, hereinafter "Turcott").

Applicant respectfully traverses the rejection of claim 18. Claim 18 is dependent on claim 9, which is believed to be patentable for at least the reasons stated above. Thus, the discussion above for claim 9 is hereby incorporated to support the patentability of claim 18.

Applicant respectfully requests reconsideration and allowance of claim 18.

§103 Rejection of the Claims Using Turkott, Lekholm, and Tockman

Claim 56 was rejected under 35 USC § 103(a) as being unpatentable over Turcott in view of Lekholm and Tockman.

Claim 56 was amended to better describe the recited subject matter. Insofar as the rejection if applied to claim 56, Applicant respectfully traverses the rejection. Applicant submits that Turcott, Lekholm, and Tockman do not provide the subject matter recited in claim 20. For example, Applicant is unable to find that Turcott, Lekholm, and Tockman teach or suggest, among other things, generating first data representative of the heart sounds for visual display of the heart sounds and generating second date representative of the heart sounds for machine detection of the heart sounds, as recited in claim 56.

Applicant respectfully requests reconsideration and allowance of claim 56.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROCEDURE

Serial Number: 09/833229

Filing Date: April 11, 2001 Title: APPARATUS

APPARATUS AND METHOD FOR OUTPUTTING HEART SOUNDS

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§103 Rejection of the Claims Using Turkott, Lekholm, Tockman, and Little

Claims 57-58 were rejected under 35 USC § 103(a) as being unpatentable over Turcott in view of Lekholm and Tockman as applied to claims 56, and further in view of Little et al. (U.S. Patent No. 4,628,939).

Applicant respectfully traverses the rejection of claims 57 and 58. Claims 57 and 58 are dependent on claim 56, which is believed to be patentable for at least the reasons stated above. Thus, the discussion above for claim 56 is hereby incorporated to support the patentability of claims 57 and 57.

Applicant respectfully requests reconsideration and allowance of claims 57 and 58.

Allowable Subject Matter

Applicant acknowledges the allowance of claims 1-8, 59-65 and 73-77.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 - EXPEDITED PROCEDURE

Serial Number: 09/833229 Filing Date: April 11, 2001

APPARATUS AND METHOD FOR OUTPUTTING HEART SOUNDS Title:

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CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 373-6912 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 25 day of May, 2004.

Name

Signature